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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/672,894	09/26/2003	Ulrich Bonne	H0004785 (1100.1206101)	9559
128	7590 03/17/2005		EXAMINER	
HONEYWELL INTERNATIONAL INC.			FITZGERALD, JOHN P	
P O BOX 2245			ART UNIT	PAPER NUMBER
MORRISTOWN, NJ 07962-2245			2856	

DATE MAILED: 03/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

		(and			
	Application No.	Applicant(s)			
Office Action Summer	10/672,894	BONNE ET AL.			
Office Action Summary	Examiner	Art Unit			
	John P. Fitzgerald	2856			
The MAILING DATE of this communication a Period for Reply	ppears on the cover sheet with the	o correspondence address			
A SHORTENED STATUTORY PERIOD FOR REF THE MAILING DATE OF THIS COMMUNICATION  - Extensions of time may be available under the provisions of 37 CFR after SIX (6) MONTHS from the mailing date of this communication.  - If the period for reply specified above is less than thirty (30) days, a ric.  - If NO period for reply is specified above, the maximum statutory perior  - Failure to reply within the set or extended period for reply will, by stat Any reply received by the Office later than three months after the mail earned patent term adjustment. See 37 CFR 1.704(b).	N. 1.136(a). In no event, however, may a reply be eply within the statutory minimum of thirty (30) of will apply and will expire SIX (6) MONTHS froute, cause the application to become ABANDOI	timely filed lays will be considered timely. om the mailing date of this communication. NED (35 U.S.C. § 133).			
Status	•				
1) Responsive to communication(s) filed on 08	December 2004.				
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	•				
Disposition of Claims					
4) ☐ Claim(s) 1-7 is/are pending in the application 4a) Of the above claim(s) is/are withdown 5) ☐ Claim(s) is/are allowed. 6) ☐ Claim(s) 1-7 is/are rejected. 7) ☐ Claim(s) is/are objected to. 8) ☐ Claim(s) are subject to restriction and	rawn from consideration.				
Application Papers					
<ul> <li>9) The specification is objected to by the Examination</li> <li>10) The drawing(s) filed on 26 September 2003 is Applicant may not request that any objection to the Replacement drawing sheet(s) including the correction</li> <li>11) The oath or declaration is objected to by the</li> </ul>	s/are: a)⊠ accepted or b)⊡ obje ne drawing(s) be held in abeyance. S ection is required if the drawing(s) is c	See 37 CFR 1.85(a). Objected to. See 37 CFR 1.121(d).			
Priority under 35 U.S.C. § 119					
12) Acknowledgment is made of a claim for foreign a) All b) Some * c) None of:  1. Certified copies of the priority docume 2. Certified copies of the priority docume 3. Copies of the certified copies of the priority docume application from the International Bure * See the attached detailed Office action for a list	nts have been received.  nts have been received in Applicationity documents have been received in Rule 17.2(a)).	ation No ved in this National Stage			
Attachment(s)					
Notice of References Cited (PTO-892) Notice of Draftsperson's Patent Drawing Review (PTO-948) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/0 Paper No(s)/Mail Date 5/28/04.	4) Interview Summa Paper No(s)/Mail 8) 5) Notice of Informal 6) Other:				

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#### **DETAILED ACTION**

#### Response to Amendment

1. In view of applicant's amendment filed 08 December 2004, objections to the specification are withdrawn. Cancellation of claims 8-21 is acknowledged.

### Response to Arguments

2. Applicant's arguments with respect to claims 1-7 have been considered but are moot in view of the new ground(s) of rejection.

## Claim Rejections - 35 USC § 103

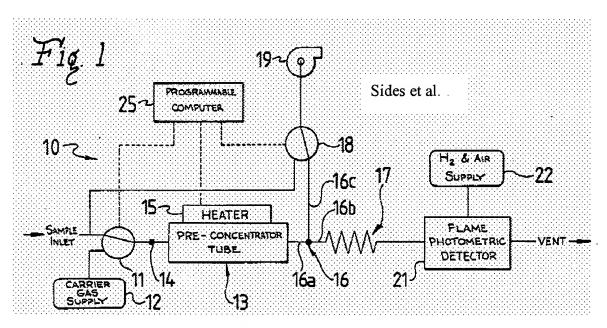
- 3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
- 4. Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 4,805,441 to Sides et al. and US 5,196,039 to Phillips et al. Sides et al. disclose a fluid analyzer (Figs. 1-5) having a pump (19), a concentrator (13) connected to the pump; and a separator (17) connected to the concentrator; wherein the concentrator has a temperature controlled heater (15) controlled by a controlling mechanism (25) connected to the elements, wherein the heater operates on a tube/channel (note: Merriam-Wesbster's Dictionary, 10<sup>th</sup> Edition defines channel: *a usually tubular enclosed passage*) within which the fluid to be analyzed is flowing and a detector (21) connected to the separator (i.e. 'second detector' as recited in claim 4). Sides et al. do not expressly disclose a fluid analyzer having a continuous heater film in the channel wherein the film generates a moving heat zone within the channel and wherein the rate movement of the heat zone is approximately the same as the fluid moving through the channel (as recited in claims 1-
- 3). Phillips et al. disclose a fluid analyzer (Figs. 1-4e) having many of the recited elements

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including a concentrator having a heater that comprises a "thin electrically conductive film" or "conductive wall tube," wherein the resistance (i.e. heating) may be varied by varying the thickness of the electrically conductive film, and a "thermal gradient in time" can be created by varying the electric current through the electrically conductive film as a function of time (i.e. thermal/electrical pulses) (Philips et al.: col. 12, lines 51-58, claim 20), and thus capable of creating "moving temperature/heat/gradient zones" wherein the rate of movement is approximately the same as the fluid moving through the channel (as recited in claims 2 and 3) (Philips et al.: col. 19, lines 25-30 and col. 20, lines 19-25). It would have been obvious to one having ordinary skill in the art at the time the invention was made to employ a film heater as taught by Phillips et al., modifying the fluid analyzer disclosed by Sides et al., thus providing a fluid analyzer to provide "thermal modulation to accumulate and focus, refocus and then accelerate a concentration pulse in the carrier stream" without the loss of orthogonality (Phillips et al.: col. 4, lines 55-69).



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5. Claims 4-7 are rejected under 35 U.S.C. § 103(a) as being unpatentable over US 4,805,441 to Sides et al. and US 5,196,039 to Phillips et al. as applied to claim 1 above, and further in view of US 6,386,014 to Butch and US 3,589,171 to Haley. Sides et al. and Phillips et al. disclose a fluid analyzer having all of the elements previously recited, including a controller (25) connected to the various elements (as recited in claim 7) and wherein a detector (21) connected to the separator (i.e. 'second detector' as recited in claim 4). Sides et al. and Phillips et al. do not express disclose additional detectors at locations recited in claims 4-6, including a flow sensor and thermal conductivity detector. Butch discloses a fluid analyzer (Figs. 1-7) having a plurality of detectors, including flow (440) and pressure detector. Haley discloses the employment of a thermal conductivity detector in a fluid analyzer (Figs. 1-4). It would have been obvious to one having ordinary skill in the art at the time the invention was made to employ any type of detector desired at various locations of the interacting elements of the flow analyzer, as taught by Butch and Haley, thus providing monitoring of the fluid's physical state within the various stages of the analyzer (Butch: col. 9, line 61 to col. 10, line 21), and is well within the design choice of one having ordinary skill in the art to monitor/detect the fluid moving through the analyzer.

#### Conclusion

- 6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See PTO form 892 for prior art relevant to the instant invention.
- 7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Fitzgerald whose telephone number is (571) 272-2843. The examiner can normally be reached on Monday-Friday from 7:00 AM to 3:30 PM. If attempts to

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reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hezron Williams, can be reached on (571) 272-2208. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center

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(EBC) at 866-217-9197 (toll-free).

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